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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,667	07/23/2001	Jayant Shukla		3116

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EXAMINER

SANDOVAL, KRISTIN D

ART UNIT PAPER NUMBER

2132

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,667

Applicant(s)

SHUKLA, JAYANT

Examiner

Kristin D. Sandoval

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2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-12 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-12 rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

In every claim applicant fails to particularly point out and distinctly claim his invention because of a lack of antecedent basis. Every time an article such as "the" or "that" is used, it

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must refer to a preceding antecedent established by the use of the article “a” or “an” or no article at all. For example, in the preamble of Claim 1 it states, “A method for duplicating information in **an IP packet**” (emphasis added). Then, in the first limitation of Claim 1 it recites, “Identifying parts **of an IP packet**” (emphasis added). This establishes two different IP packets as antecedents, hence the first limitation would be identifying parts of a different IP packet than the one established in the preamble. Consequently, in the next limitation of Claim 1, when it states, “Copying that information into **the packet**” (emphasis added), it is unclear which packet information is being copied into, whether it is the packet where parts were identified that can be potentially modified by NAT’s, or is it the packet where information will be duplicated as stated in the preamble. The scope is unclear. In addition, in the same limitation it recites, “Copying **that information**” (emphasis added). There is a lack of antecedent basis for “that information” and it is not clear which information is being referred to. In addition, in the same limitation it states, “Copying that information into the packets in **its** current form or copying **it** into a different form” (emphasis added). It is unclear what “its” and “it” is referring to, whether “its” is referring to “that information” or “the packet” since it could be referring to both because the information could be copied into the packet or into a different format or the packet could remain in its current form or be copied into a different format. The scope is unclear.

Because of multiple IP packets being established in Claim 1, in Claim 2, the limitation, “wherein complete IP header and the transport layer header is inserted into **the IP packet**” (emphasis added) is recited and it is unclear which IP packet the IP header and transport layer header are being inserted into.

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These are just two examples, lack of antecedent basis exists in every claim along with numerous spelling and grammatical errors.

4. Claim 5 provides for the use of studying the effects of NAT's in order to partially or completely reverse the effect of intermediate NATs, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 5 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 5 merely identifies certain parts of the packet and generating a look-up table but does not contain any inventive steps showing how this method would accomplish its stated use.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 6-8 rejected under 35 U.S.C. 102(e) as being anticipated by Poier et al. (Poier), PG-PUB 20020124090.

As per claims 6:

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Poier discloses a method comprising:

Modifying the body of the packet that may contain Ip address or port numbers modified by intermediate NATs to their original values; modifying the transport header by replacing the original port numbers and recomputing part or all of the transport layer header as necessary; modifying the IP header the replacing the original source and destination IP address and recomputing the length and/or checksum (paragraphs 0050-0056).

As per claims 7 and 8:

Poier discloses a method comprising:

Reversing only the transport layer header by replacing the modified port numbers with the original ports numbers, adjusting the sequence and acknowledge numbers to correctly reflect the unmodified packet and recomputing the checksum field and reversing only the IP header by replacing the observed source and destination IP address with the original source and destination IP address followed b recomputation the length and checksum (0050-0056).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 10-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Poier et al. (Poier), PG-PUB 20020124090 in view of Brustolini et al. (Brustolini), U.S. Patent No. 6,963,982.

As per claim 10:

Poier teaches a method comprising:

Modifying the transport header so that the port numbers match that of the incoming network connection before the effect of the NAT were reversed; modifying the IP header so that the source and destination IP addresses numbers match that of the incoming network connection before the effect of the NAT were reversed; and modifying the message body (paragraphs 0050-0056).

Poier fails to teach these modifications based on look-up tables, however Brustolini discloses a method wherein a look up table is generated that signifies the effects of NAT's (7:38-56).

As per claims 11-12:

Poier teaches a method wherein the IP header and/or the transport header of the outgoing packet is modified by changing the destination and/or source IP headers of the packet and the IP address or port number embedded inside the packet body are modified and re-computing the length and/or checksum fields in the transport and/or IP headers (paragraphs 0050-0056).

Poier fails to teach these modifications based on look-up tables, however Brustolini discloses a method wherein a look up table is generated that signifies the effects of NAT's (7:38-56).

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It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify these parts of the packet in order to ensure end to end security (Poier, 0050) for packets within a VPN and a look up table keeps all of the correlations between the packet and its global data making it easier to keep track of the original information NAT's tend to modify.

Allowable Subject Matter

7. Claims 1-4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristin D. Sandoval whose telephone number is 571-272-7958. The examiner can normally be reached on Monday - Friday, 8:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kristin D Sandoval
Examiner
Art Unit 2132

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